

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/042771 A3

(51) International Patent Classification⁷: C12Q 1/04, 1/37

(21) International Application Number:
PCT/US2004/036469

(22) International Filing Date:
3 November 2004 (03.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/516,688 3 November 2003 (03.11.2003) US
60/578,502 9 June 2004 (09.06.2004) US

(71) Applicants (for all designated States except US):
ETHICON, INC. [US/US]; Route 22, Somerville, NJ
08876 (US). EXPRESSIVE CONSTRUCTS, INC.
[US/US]; 6 Park Avenue, Worcester, MA 01605 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SANDERS,
Mitchell, C. [US/US]; 20 Stillwater Heights Drive,
West Bolyston, MA 01583 (US). COLPAS, Gerard, J.
[US/US]; 310 Wachusett Street, Holden, MA 01520 (US).
ELLIS-BUSBY, Diane, L. [US/US]; 875 Brockelman
Road, Lancaster, MA 01532-2317 (US). HAVARD,
Jennifer, M. [US/US]; 9 Eaton Road, Framingham, MA
01701 (US).

(74) Agents: HOGLE, Doreen, M. et al.; Hamilton, Brook,
Smith & Reynolds, P.C., 530 Virginia Road, P.O. Box 9133,
Concord, MA 01742-9133 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
4 August 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: COLORIMETRIC SUBSTRATES, COLORIMETRIC SENSORS, AND METHODS OF USE

(57) Abstract: Described herein is a substrate comprising at least one colorimetric component attached to a peptide, as well as methods for detecting a modification of said substrate. Also described are methods of detecting the presence or absence of a protein, for example, a protein produced by a microorganism, by contacting a substrate with a sample. If the sample contains the protein of interest, the substrate is modified and a visible color change results, indicating the presence or absence of the protein in the sample. The present invention also features biosensors and kits for detecting the presence or absence of microorganisms and/or proteins in a sample.

WO 2005/042771 A3